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A number of different dielectric materials have been used in capacitors. FIG. 1 is a cross sectional view of a capacitor 10 in accordance with one embodiment of the invention. The capacitor 10 uses a $BaCaTiZrO_3$ (hereinafter BCTZ) 12 dielectric material. This material has a high dielectric constant of around 200 when deposited at around 450° C to a thickness of 50 mm (millimeters). The high end of the temperature is limited for decoupling capacitors, because the aluminum leads become very soft above 450°C. If higher temperatures could be used, a higher dielectric constant might be possible. In addition, the BCTZ's dielectric constant does not vary significantly with voltage when used with nickel electrodes. This is especially true for the voltage ranges found in integrated circuits. The capacitor 10 has a first nickel electrode 14 and a second nickel electrode 16 that sandwich the BCTZ 12. Nickel has the advantage that it may be chemically etched. This is an advantage over materials that cannot be chemically etched. In addition, nickel is less expensive than some of the other materials that have been used in the prior art as electrodes. In one embodiment, the formulation of the dielectric is $Ba_{0.96}Ca_{0.04}Ti_{0.84}Zr_{0.16}O_3$. Where the subscript 0.96 next to the barium (Ba) means there are 96 atoms of barium for each four atoms of calcium (Ca). Similarly, there are 84 atoms of titanium (Ti) for each 16 atoms of zirconium (Zr). FIG. [[6]] 5 is a drawing of BCTZ molecule. The molecule is a body center cubic molecule with barium (Ba) and calcium (Ca) on the corners (A site) 17 and titanium and zirconium oxide in the center (B site) 18. In one embodiment, the barium can range between eighty eight to one hundred atoms while the calcium ranges between twelve and zero atoms. The zirconium may range between ten to eighteen atoms while the titanium ranges between ninety and eighty two atoms. In one embodiment, the titanium or zirconium, B site, is partially replaced by acceptors such as scandium (Sc), magnesium (Mg), aluminum (Al), chromium (Cr), gallium (Ga), manganese (Mn), yttrium (Y) or ytterbium (yb). In one embodiment, the acceptors range between zero and one percent of the atoms of the "B site" atoms. In one experiment, the BCTZ was doped with 0.4% scandium in another experiment the BCTZ was doped with 0.4% magnesium.